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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/799,630	03/15/2004	Joon-hyun Yang	101-1016	8529
38209	7590	07/26/2005	EXAMINER	
STANZIONE & KIM, LLP 1740 N STREET, N.W., FIRST FLOOR WASHINGTON, DC 20036			HO, BINH VAN	
			ART UNIT	PAPER NUMBER
			2821	

DATE MAILED: 07/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

5m

Office Action Summary	Application No.	Applicant(s)	
	10/799,630	YANG, JOON-HYUN	
	Examiner	Art Unit	
	Binh V. Ho	2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-9, 11, 13-23, 26 and 27 is/are rejected.
- 7) ☒ Claim(s) 6, 10, 12, 24 and 25 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>5/9/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings Objections

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the claim 22, "primary and secondary coil" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Appropriate correction is required.

Specification Objections

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

In Claim 22, the term "primary and secondary coil" is not supported by the specification.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-3, 7-8, 11, 13, 16-22, 26-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Prior Art (Figure 1 and the specification page 1, [0008] of the instant application).

(Claims 1-2, 11, 18, 26-27)

The Prior Art discloses a high-efficiency power supply apparatus using a driving system driving a display panel, comprising a direct current power supplying circuit (120, 130, 140) to improve a power factor (130) by rectifying an alternating current power (110), and generating a direct current power (140) not isolated from the

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alternating current power (110), and a direct current power isolated (140) from the alternating current power (110); a display panel driving circuit (150) to generate various driving signals to drive the display panel with the non-isolated direct current power; and a video signal processing circuit (the specification page 1, [0008]) to perform a predetermined video signal processing to generate data to drive the display panel with the isolated direct current power(140).

(Claim 3)

The power factor correction circuit includes a converter to control a level of the output voltage panel (130 and the specification page 1, [0044] of the instant application).

(Claims 7 and 16)

The display panel includes a plasma display panel (the specification page 1, [0011] of the instant application).

(Claims 8 and 17)

The sustain driving circuit of the plasma display panel (130 and the specification page 1, [0010] and [0011] of the instant application).

(Claim 13)

The non-isolated direct current power is an output power of a power factor correction circuit (130).

(Claims 19, 20, 21, 22)

The display panel driving circuit comprises a sustain driving circuit connected to a first ground potential, and the video signal processing circuit connected to a second

ground potential which is isolated from the first ground potential, a DC-DC conversion circuit coupled between the power supply unit and the video signal processing circuit, wherein the power supply unit comprises a circuit receiving an AC power and outputting a DC power, and the DC power is transmitted to the video signal processing circuit through the DC-DC conversion circuit and directly to the display panel driving circuit and the display panel driving circuit and the DC-DC conversion circuit are connected to a first ground potential, and the video signal processing circuit is connected to a second ground potential which is isolated from the first ground potential (Figure 1).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over admission of Prior Art in view of Ceruti (US 20050018455).

Admission of Prior Art discloses substantially all of the elements, except the converter includes a single ended primary inductance converter (SEPIC). Ceruti teaches the SEPIC (Figure 1 or abstract). It would have been obvious to one having ordinary skill in the art at the time invention was made to use in an advantageous embodiment the present invention provides a voltage converter for

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a power supply which combines all advantages of a known SEPIC converter with the advantage of lower cost requirements for the energy storage capacitor ([0006]).

7. Claims 5 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over admission of Prior Art in view of Liang (6,108,222).

Admission of Prior Art discloses substantially all of the elements in claims 5 and 14, except the feature ripple filter to filter the output of the power factor correction circuit. Liang teaches this feature in "Abstract". It would have been obvious to one having ordinary skill in the art at the time invention was made to provide Prior Art's circuit with ripple filter because this feature is conventional as taught by Liang in "Abstract".

8. Claims 9, 15, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over admission of Prior Art in view of Niida (JP2000-350697A).

Admission of Prior Art discloses substantially all of the elements in claims 9, 15, and 23, except the feature photocoupler between the video signal processing circuit and the display panel driving circuit. Niida teaches this feature in "Abstract". It would have been obvious to one having ordinary skill in the art at the time invention was made the photocoupler as potential insulation from noises.

Allowable Subject Matter

9. Claims 6,10,12 and 24-25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The following is a statement of reasons for the indication of allowable subject matter:

The cited art of the record fails to teach the serial type switching ripple filter and the an output end ground (first ground) of the circuit generating non-isolated direct current and an output end ground (second ground) of the circuit generating isolated direct current are connected to each other, and the first grounds and the second grounds are electrically blocked from each other^{or}, a logic circuit coupled to the photocoupler to transmit data generated from the video processing circuit and a converter coupled between the logic and the DC-DC converter, and coupled to the second ground potential.

Inquiry

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Binh V. Ho whose telephone number is 571 272 8583. The examiner can normally be reached on M-F from 8:00AM - 4:30PM.

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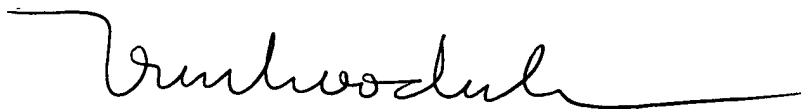
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don K. Wong can be reached on 571 272 1834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Binh V Ho
Examiner
Art Unit 2821

Binh Van Ho
07/14/2005

Primary

A handwritten signature in black ink, appearing to read 'Binh Van Ho', with a long horizontal flourish extending to the right.